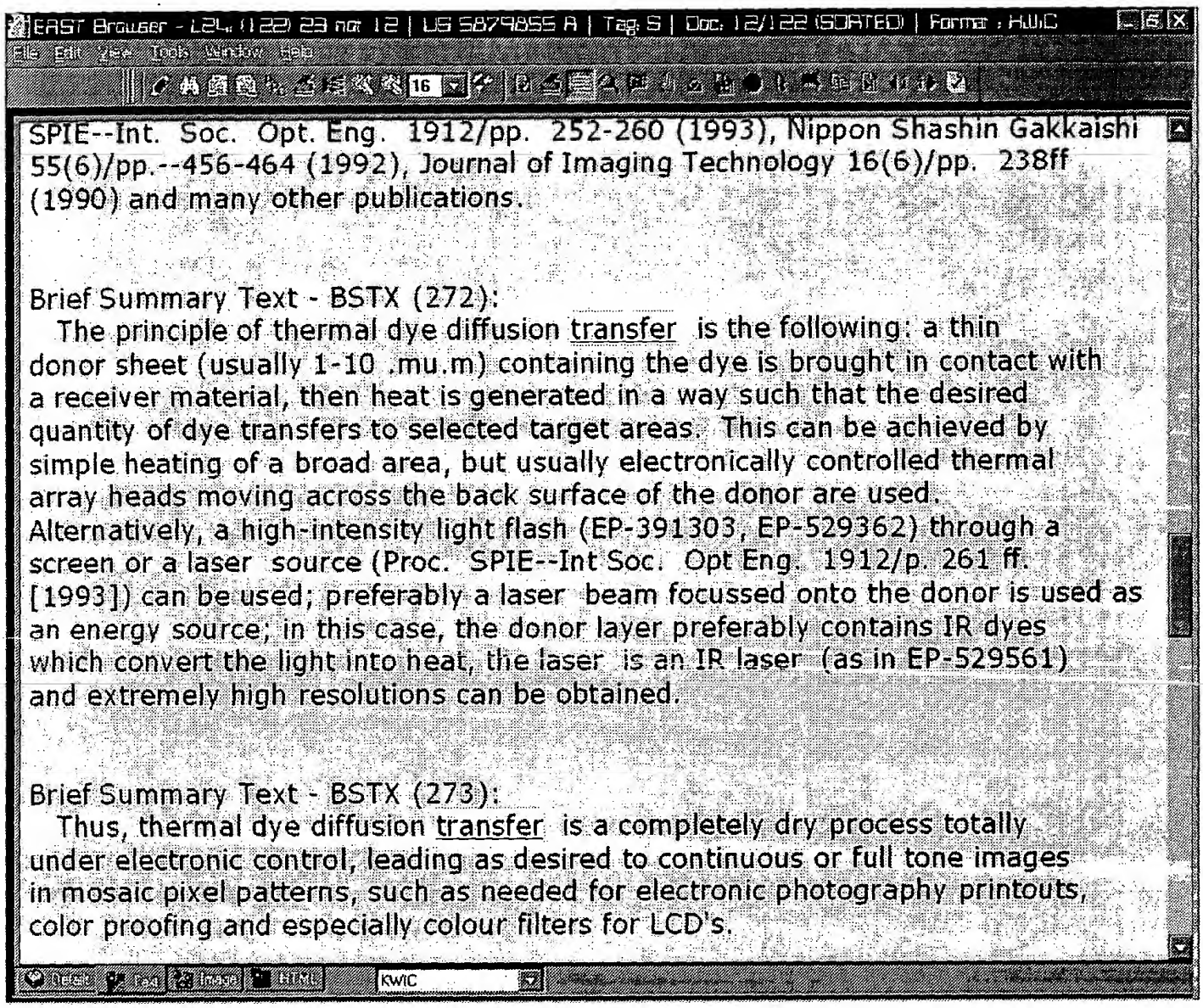
EAST Browser - L24: (122) 23 not 12 | US 5879855 A | Tag: S | Doc: 12/122 (SORTED) | Format : KWIC
File Edit View Tools Window Help
SPIE--Int. Soc. Opt. Eng. 1912/pp. 252-260 (1993), Nippon Shashin Gakkaishi 55(6)/pp.--456-464 (1992), Journal of Imaging Technology 16(6)/pp. 238ff (1990) and many other publications.
Brief Summary Text - BSTX (272):
The principle of thermal dye diffusion transfer is the following: a thin donor sheet (usually 1-10 .mu.m) containing the dye is brought in contact with a receiver material, then heat is generated in a way such that the desired quantity of dye transfers to selected target areas. This can be achieved by simple heating of a broad area, but usually electronically controlled thermal array heads moving across the back surface of the donor are used. Alternatively, a high-intensity light flash (EP-391303, EP-529362) through a screen or a laser source (Proc. SPIE--Int Soc. Opt Eng. 1912/p. 261 ff. [1993]) can be used; preferably a laser beam focussed onto the donor is used as an energy source; in this case, the donor layer preferably contains IR dyes which convert the light into heat, the laser is an IR laser (as in EP-529561) and extremely high resolutions can be obtained.
Brief Summary Text - BSTX (273):
Thus, thermal dye diffusion transfer is a completely dry process totally under electronic control, leading as desired to continuous or full tone images in mosaic pixel patterns, such as needed for electronic photography printouts, color proofing and especially colour filters for LCD's.
Detail Text Image HTML
KWIC

"portability" purposes that "usage map" can also be transferred to a memory chip incorporated within the ribbon cassette. The process requires for its implementation a printer that includes appropriate data processing and digital memory means, and as noted the ribbon cassette must also include memory if the usage data pertaining to that particular cassette are to accompany it from one printer to another.

Brief Summary Text - BSTX (14):

Energy Source: A source of a form of energy (light or heat) including a laser, a conventional thermal transfer print head, and the like.

Brief Summary Text - BSTX (17):

Technology: A particular method of transferring an image from a medium to a substrate using one or more forms of energy, including those in which the transfer material comprises thermal transfer ink, dye diffusion (also called "sublimation") dye, electroresistive ink, combinations of chromogenic materials and encapsulated radiation curable compositions, combinations of a developer and a photosensitive microencapsulated material, materials subject to transfer when acted upon by light (including laser light), and materials in which either or both light and heat cause changes in at least one of the group of physical parameters of said materials consisting of softening, melting and glass transition temperatures, rates of sublimation and of diffusion, and viscosity, as well as other methods and materials whether or not presently known or conceived.

More recently, the use of laser energy which exposes the surface to be marked through a mask has been used in the marking of semiconductor packages and similar articles. Typically, an ink which is ablated by the laser energy is applied. Other means of laser marking have also been implemented. However,
there still exists a need for a very low cost laser marking method which produces a high quality, abrasion resistant mark at as low a cost as possible.

Brief Summary Text - BSTX (8):
Accordingly, it is an object of the present invention to provide an improved laser marking method.

Brief Summary Text - BSTX (9):
A further object of the present invention is to provide a high quality, low cost laser marking method which is suitable for marking on metal surfaces of semiconductor device packages.

Brief Summary Text - BSTX (10):
Yet a further object of the present invention is to provide an improved coating to be applied to metal surfaces which is alterable by exposure to laser energy and which thereby produces a high quality mark .

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